EPA Official Record

Notes ID: A46BBF4342645D12852577DD00671849

From: David Peterson/R1/USEPA/US

To: Gary Gill-Austern <GGill-Austern@nutter.com>

Copy To: Cristeen Schena/R1/USEPA/US@EPA; Cynthia Catri/R1/USEPA/US@EPA; Dave Dickerson/R1/USEPA/US@EPA; ManChak Ng/R1/USEPA/US@EPA; Maximilian Boal/R1/USEPA/US@EPA; Mary

Ryan <MRyan@nutter.com>

Delivered Date: 08/31/2010 05:21 PM EDT

Subject: RE: New Bedford Harbor Superfund Site emails in response to your FOIA request - 2nd attempt Emails 10-16

Gary,

The following are E-Mails #10-16. Please let me know if they do not come through legibly.

F-Mail #10

From: "Fox, Steve \(New Bedford\)" <Steve.Fox@jacobs.com>

To: Dave Dickerson/R1/USEPA/US@EPA

Date: 07/15/2009 09:06 AM

Subject: FW: LHCDF air modeling assumption and scenarios

```
Hi Dave,
Please find attached the assumptions that I had Changsheng pull together
based upon the ERDC modeling information and assumptions.
Thanks,
Steve
----Original Message----
From: Lu, Changsheng
Sent: Tuesday, July 14, 2009 4:04 PM
To: Fox, Steve (New Bedford)
Subject: LHCDF air modeling assumption and scenarios
Here are the info I put together for the modeling effort. I think we miss
the info on cell size (not that important since it is mostly a near point source in the model). The main thing is the dredging and disposing length.
Hope you and Anita can provide the length based on dredging volumes. For 3-year scenario, it is about 110000 cy/year. For 5-year scenario, it is
about 70000 cy/year.
Please call or email me if you have any questions.
Changsheng
----Original Message----
From: Fox, Steve (New Bedford)
Sent: Thursday, July 09, 2009 9:29 AM
To: Lu, Changsheng
Subject: FW: Mean Constituents by Lift/Year
FYI, I will give you a call.
Thanks,
Steve
----Original Message----
From: Leitch, Robert A NAE [mailto:Robert.A.Leitch@usace.army.mil]
Sent: Wednesday, July 01, 2009 11:37 AM
To: Fox, Steve (New Bedford)
Subject: FW: Mean Constituents by Lift/Year
----Original Message---
From: Fredette, Thomas J NAE
Sent: Wednesday, July 30, 2008 11:56 AM
To: Leitch, Robert A NAE; Schroeder, Paul R ERDC-EL-MS; Ruiz, Carlos E
ERDC-EL-MS; Mitkevicius, K C NAE; 'dickerson.dave@epamail.epa.gov'
Subject: Mean Constituents by Lift/Year
The attached pdf file contains a summary of an analysis I did looking at the
```

estimated mean concentration of Total PCB, Cu, Silt/Clay, and TOC under both a 3-lift and 5-lift scenario for the Upper Harbor CAD cell. That analysis was done using a straight average of the DMU constituent values within each lift and also, for PCBs, computing a DMU-volume weighted average (last column

of table). The table also includes average values for the Lower Harbor CAD cell under a 2-lift scenario.

A caveat: My total volume numbers do not precisely match an estimate of volume Dave recently provided to me (28 July), but they do come close to the original estimate on the first tab of the attached spreadsheet (provided sometime earlier by Dave). Nonetheless, I think for the purposes of this analysis slight differences in volumes (Upper Harbor estimate 345,000 vs. 403,000) won't make a substantial difference.

The 5-lift and 3-lift non-weighted averages show similar ranges for the various constituents with the 5-lift scenario showing an intermediate PCB value of 889 in lift 2 that is not reflected in the 3-lift scenario (basically in the 5-lift scenario the DMUs of lift 2 contributing to this value get incorporated into lift 1 of the 3-lift scenario).

The PCB weighted average shows general agreement with the non-weighted approach, although lift-2 under both scenarios is somewhat higher in the weighted average calculation (5-lift; 889 vs. 1230: 3-lift; 281 vs. 435).

In general, I believe that this analysis supports a conclusion that modeling of the upper harbor can be done based on three composites. The analysis also suggests that use of a volume weighted average may not provide much additional discrimination. Therefore, I did not conduct that analysis for the other constituents.

I have attached the spreadsheet used to generate the pdf table if anyone wants to dig into the weeds.

In particular, Paul and Carlos should comment on whether they generally concur or whether they think some different analysis of the data would be critical for model input and lift assumptions.

Tom

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer. W



Proposed LHCDF Air Modeling.pdf CAD modeling and Disposal Assumptions.pdf Proposed LHCDF Air Modeling.doc

E-Mail #11

"Schroeder, Paul R ERDC-EL-MS" < Paul.R.Schroeder@usace.army.mil> From:

Dave Dickerson/R1/USEPA/US@EPA To:

"Hayter, Earl ERDC-CHL-MS" < Earl. Hayter@usace.army.mil>, "Anderson, Mark J Jr NAE" < Mark. J. Anderson. Jr@usace.army.mil>, "Iorio, Maryellen NAE" < Maryellen. Iorio@usace.army.mil>, "Fredette, Thomas ERD" <Thomas.J.Fredette@usace.armv.mil>

Date: 05/19/2010 12:00 AM

Subject: RF: final comments on the NRH CAD cell model report

I addressed your comments incorporating your changes except where noted in the comments which contain some clarifications.

Paul

----Original Message----From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov] Sent: Tuesday, May 18, 2010 10:08 AM To: Schroeder, Paul R ERDC-EL-MS Cc: Hayter, Earl ERDC-CHL-MS; Anderson, Mark J Jr NAE; Iorio, Maryellen NAE; Fredette, Thomas ERD Subject: RE: final comments on the NBH CAD cell model report Paul - I think we're almost done! My (hopefully) final comments are attached. Thanks again to everyone who contributed.

(See attached file: lhcc.erdc.model.5.18.10.doc)

From: "Schroeder, Paul R ERDC-EL-MS" <Paul.R.Schroeder@usace.army.mil>

To: Dave Dickerson/R1/USEPA/US@EPA, "Fredette, Thomas ERD" <Thomas.J.Fredette@usace.army.mil>, "Hayter, Earl ERDC-CHL-MS" <Earl.Hayter@usace.army.mil>, "Anderson, Mark J Jr <Mark.J.Anderson.Jr@usace.army.mil>, "Iorio, Maryellen NAE"

```
Date: 05/15/2010 11:55 PM
 Subject: RE: final comments on the NBH CAD cell model report
 Dave.
 I addressed all of your comments, except the mentioning of activated
 carbon
 which I understand that you did not want a control section added. Do
 you
 want a statement added to the conclusion #9 that the losses between
 seasons could be reduced by broadcasting activated carbon? I also added
 conclusion regarding acceleration of the placement schedule.
 Please check out the changes and then I will finalize the document.
 Paul
 ----Original Message----
 From: dickerson.dave@epamail.epa.gov [
 mailto:dickerson.dave@epamail.epa.gov ]
 Sent: Friday, May 07, 2010 10:24 AM
To: Schroeder, Paul R ERDC-EL-MS; Fredette, Thomas ERD; Hayter, Earl
 ERDC-CHL-MS; Anderson, Mark J Jr NAE; Iorio, Maryellen NAE Subject: final comments on the NBH CAD cell model report
 Hello - thanks to all involved with this effort. Looks to me like we
 have a very good product. My relatively few and minor comments are attached in blue text.  \\
 My one over-arching comment (repeated in the attachment) is this: the modeling assumes placement over three years, yet our cost estimates are
 now assuming only one or two years (depending on funding) to fill the
 cell. Can the report add a short discussion about but what the likely impact would be (i.e., higher or lower losses) if the cell is filled
 over a shorter time frame - i.e., one or two years?
 Thanks again - Dave
 p.s. - I'll look over the tables and figures early next week and get
 any comments on those to you as well)
  (See attached file: lhcc.erdc.model.rep.finalreview.doc)
 [attachment "Lower Harbor CAD Report May 2010prs.doc" deleted by Dave Dickerson/R1/USEPA/US]
           W
 lhad erda model 5 18 10 prs doc
F-Mail #12
   From:
           "Schroeder, Paul R ERDC-EL-MS" <Paul.R.Schroeder@usace.army.mil>
           Dave Dickerson/R1/USEPA/US@EPA, "Fredette, Thomas ERD" <Thomas.J.Fredette@usace.army.mil>, "Hayter, Earl ERDC-CHL-MS" <Earl.Hayter@usace.army.mil>, "Anderson, Mark J Jr NAE"
   To:
           <Mark.J.Anderson.Jr@usace.army.mil>, "Iorio, Maryellen NAE" <Maryellen.lorio@usace.army.mil>
           05/15/2010 11:55 PM
```

Dave,

<Marvellen.Iorio@usace.armv.mil>

I addressed all of your comments, except the mentioning of activated carbon which I understand that you did not want a control section added. Do you want a statement added to the conclusion $\sharp 9$ that the losses between dredging seasons could be reduced by broadcasting activated carbon? I also added a conclusion regarding acceleration of the placement schedule.

Please check out the changes and then I will finalize the document.

Subject: RE: final comments on the NBH CAD cell model report

Paul

```
----Original Message----
From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov]
Sent: Friday, May 07, 2010 10:24 AM
```

To: Schroeder, Paul R ERDC-EL-MS; Fredette, Thomas ERD; Hayter, Earl ERDC-CHL-MS; Anderson, Mark J Jr NAE; Iorio, Maryellen NAE Subject: final comments on the NBH CAD cell model report

Hello - thanks to all involved with this effort. Looks to me like we have a very good product. My relatively few and minor comments are attached in blue text.

My one over-arching comment (repeated in the attachment) is this: the modeling assumes placement over three years, yet our cost estimates are now assuming only one or two years (depending on funding) to fill the cell. Can the report add a short discussion about but what the likely impact would be (i.e., higher or lower losses) if the cell is filled over a shorter time frame - i.e., one or two years?

Thanks again - Dave

p.s. - I'll look over the tables and figures early next week and get any comments on those to you as well) $\,$

(See attached file: lhcc.erdc.model.rep.finalreview.doc)



Lower Harbor CAD Report May 2010prs.doc

E-Mail #13

From: "Schroeder, Paul R ERDC-EL-MS" < Paul.R.Schroeder@usace.army.mil>

To: Dave Dickerson/R1/USEPA/US@EPA

Cc: "Hayter, Earl ERDC-CHL-MS" <Earl.Hayter@usace.army.mil>, "Anderson, Mark J Jr NAE" <Mark.J.Anderson.Jr@usace.army.mil>, "lorio, Maryellen NAE" <Maryellen.lorio@usace.army.mil>, "Fredette, Thomas ERD" <Thomas.J.Fredette@usace.army.mil>

Date: 05/13/2010 12:33 AM

Subject: RE: final comments on the NBH CAD cell model report

Here are some responses to your questions on the new section. Paul ----Original Message----From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov] Sent: Tuesday, May 11, 2010 10:56 AM To: Schroeder, Paul R ERDC-EL-MS Cc: Hayter, Earl ERDC-CHL-MS; Anderson, Mark J Jr NAE; Iorio, Maryellen NAE; Fredette, Thomas ERD Subject: RE: final comments on the NBH CAD cell model report Paul - the draft write-up on schedule implications looks good. Just a few comments attached. Thanks for the quick response! (See attached file: lhcc.schedule.markup.510.doc) From: "Schroeder, Paul R ERDC-EL-MS" <Paul.R.Schroeder@usace.army.mil> To: Dave Dickerson/R1/USEPA/US@EPA Cc: "Hayter, Earl ERDC-CHL-MS" <Earl.Hayter@usace.army.mil>, "Anderson, Mark J Jr NAE" <Mark.J.Anderson.Jr@usace.army.mil>, "Iorio, Maryellen NAE"
<Maryellen.Iorio@usace.army.mil>, "Fredette, Thomas ERD" <Thomas.J.Fredette@usace.army.mil>

Date: 05/11/2010 10:05 AM

Subject: RE: final comments on the NBH CAD cell model report

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Dave.
```

Paul

----Original Message---From: dickerson.dave@epamail.epa.gov [
mailto:dickerson.dave@epamail.epa.gov]
Sent: Mon 5/10/2010 1:39 PM
To: Schroeder, Paul R ERDC-EL-MS
Cc: Hayter, Earl ERDC-CHL-MS; Anderson, Mark J Jr N

Cc: Hayter, Earl ERDC-CHL-MS; Anderson, Mark J Jr NAE; Iorio, Maryellen NAE; Fredette, Thomas ERD Subject: RE: final comments on the NBH CAD cell model report

Paul - thanks for the info. Just to confirm, go ahead and add a short discussion on the effects of scheduling. But I think we'll keep potential use of AC out of the model report and just continue to consider it as a potential management option/belt and suspenders kind of thing.

Dave

From: "Schroeder, Paul R ERDC-EL-MS"
<Paul.R.Schroeder@usace.army.mil>

To: Dave Dickerson/R1/USEPA/US@EPA, "Fredette, Thomas ERD" <Thomas.J.Fredette@usace.army.mil>, "Hayter, Earl ERDC-CHI-MS" <Earl.Hayter@usace.army.mil>, "Anderson, Mark J Jr NAE" <Mark.J.Anderson.Jr@usace.army.mil>, "Iorio, Maryellen NAE" <Maryellen.Iorio@usace.army.mil>

Date: 05/07/2010 11:55 PM

Subject: RE: final comments on the NBH CAD cell model report

Dave,

I can add a short discussion on effects of scheduling. The gist of the potential effects are described in principle. Since the water in the $\mbox{\footnotesize CAD}$

approaches the sediment pore water quality in about 50 loads, it will do little in terms of the during placement losses. However, it will greatly

reduce the losses between placement years. The bigger concern that needs to be addressed in the change in the size of the CAD cell required. With

the reduction in placement time, there is a corresponding reduction in the

reduction in placement time, there is a corresponding reduction in the time for consolidation of the dredged material. Therefore, the quantity of

for consolidation of the dredged material. Therefore, the quantity of consolidation which was about 10 ft prior to capping could be reduced to about 5.5 ft if disposed in one year, increasing the size needed to perhaps

700 ft on a side instead of 650 ft.

Do you want a small section on controls in the main text and conclusions (regarding application of carbon and silt curtains)? I believe that we had

deleted the content on activated carbon because we did not present it in the $% \left(1\right) =\left(1\right) \left(1\right)$

main body of the text. Use of activated carbon in this manner is somewhat

experimental. The only application of this nature has been the broadcasting of PAC in a CDF to control volatilization. GAC could also be used and

it will settle faster with less loss of AC from the CAD cell, but with potentially less stripping of PCBs from the water column within the CAD $\,$

cell. The settled AC would serve to also strip the PCBs from the pore water $% \left(1\right) =\left(1\right) \left(1\right)$

being expelled from the settled dredged material. Other delivery systems such

as Sedimite could deliver AC to the dredged material surface in the CAD cell but

it would not provide any control for the existing contamination in the water

column after placement.

Silt curtains with activated carbon could provide controls on PCB losses during placement. The need for controls is probably questionable considering how small the is likely to be in comparison to the losses that are likely to be occurring at the dredging site. Paul ----Original Message----From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov] Sent: Friday, May 07, 2010 10:24 AM
To: Schroeder, Paul R ERDC-EL-MS; Fredette, Thomas ERD; Hayter, Earl ERDC-CHL-MS; Anderson, Mark J Jr NAE; Iorio, Maryellen NAE Subject: final comments on the NBH CAD cell model report Hello - thanks to all involved with this effort. Looks to me like we have a very good product. My relatively few and minor comments are attached in blue text. My one over-arching comment (repeated in the attachment) is this: the modeling assumes placement over three years, yet our cost estimates are now assuming only one or two years (depending on funding) to fill the cell. Can the report add a short discussion about but what the likely impact would be (i.e., higher or lower losses) if the cell is filled over a shorter time frame - i.e., one or two years? Thanks again - Dave p.s. - I'll look over the tables and figures early next week and get any comments on those to you as well) (See attached file: lhcc.erdc.model.rep.finalreview.doc) [attachment "Lower Harbor CAD Report May 2010prs.doc" deleted by Dave Dickerson/R1/USEPA/US1 W lhcc schedule markup 510prs.doc E-Mail #14 From: "Schroeder, Paul R ERDC-EL-MS" < Paul.R.Schroeder@usace.army.mil> To: Dave Dickerson/R1/USEPA/US@EPA "Hayter, Earl ERDC-CHL-MS" < Earl. Hayter@usace.army.mil>, "Anderson, Mark J Jr NAE" < Mark. J. Anderson. Jr@usace.army.mil>, "Iorio, Maryellen NAE" < Maryellen. Iorio@usace.army.mil>, "Fredette, Thomas ERD" Cc: <Thomas.J.Fredette@usace.army.mil> Date: 05/11/2010 10:05 AM

Dave

I added a small section at the end of Chapter 4 on the effects of scheduling. Any comments on it while we move forward with wrapping this up?

Paul

----Original Message---From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov]
Sent: Mon 5/10/2010 1:39 PM
To: Schroeder, Paul R ERDC-EL-MS
Cc: Hayter, Earl ERDC-CHL-MS, Anderson, Mark J Jr NAE; Iorio, Maryellen NAE; Fredette, Thomas ERD
Subject: RE: final comments on the NBH CAD cell model report

Paul - thanks for the info. Just to confirm, go ahead and add a short discussion on the effects of scheduling. But I think we'll keep potential use of AC out of the model report and just continue to consider it as a potential management option/belt and suspenders kind of thing.

Subject: RE: final comments on the NBH CAD cell model report

Dave

 $From: "Schroeder, Paul \ R \ ERDC-EL-MS" < Paul.R.Schroeder@usace.army.mil > 1.000 +$

To: Dave Dickerson/R1/USEPA/US@EPA, "Fredette, Thomas ERD" <Thomas.J.Fredette@usace.army.mil>, "Hayter, Earl ERDC-CHL-MS" <Earl.Hayter@usace.army.mil>, "Anderson, Mark J Jr NAE" <Maryellen.Iorio@usace.army.mil>, "Iorio, Maryellen NAE" <Maryellen.Iorio@usace.army.mil>

Dave,

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reduce the losses between placement years. The bigger concern that

be addressed in the change in the size of the CAD cell required. With

reduction in placement time, there is a corresponding reduction in the

for consolidation of the dredged material. Therefore, the quantity of consolidation which was about 10 ft prior to capping could be reduced to about 5.5 ft if disposed in one year, increasing the size needed to perhaps 700 ft on a side instead of 650 ft.

Do you want a small section on controls in the main text and conclusions (regarding application of carbon and silt curtains)? I believe that we had

deleted the content on activated carbon because we did not present it in

main body of the text. Use of activated carbon in this manner is

experimental. The only application of this nature has been the

broadcasting of PAC in a CDF to control volatilization. GAC could also be used and

it will settle faster with less loss of AC from the CAD cell, but with potentially less stripping of PCBs from the water column within the CAD

The settled AC would serve to also strip the PCBs from the pore water

expelled from the settled dredged material. Other delivery systems such

Sedimite could deliver AC to the dredged material surface in the CAD

cell but it would not provide any control for the existing contamination in the

column after placement

Silt curtains with activated carbon could provide controls on PCB losses during placement.

The need for controls is probably questionable considering how small the

is likely to be in comparison to the losses that are likely to be occurring at the dredging site.

Paul

----Original Message---From: dickerson.dave@epamail.epa.gov [

mailto:dickerson.dave@epamail.epa.gov [
Sent: Friday, May 07, 2010 10:24 AM

To: Schroeder, Paul R ERDC-EL-MS; Fredette, Thomas ERD; Hayter, Earl ERDC-CHL-MS; Anderson, Mark J Jr NAE; Iorio, Maryellen NAE Subject: final comments on the NBH CAD cell model report

Hello - thanks to all involved with this effort. Looks to me like we have a very good product. My relatively few and minor comments are attached in blue text.

My one over-arching comment (repeated in the attachment) is this: the modeling assumes placement over three years, yet our cost estimates are now assuming only one or two years (depending on funding) to fill the cell. Can the report add a short discussion about but what the likely impact would be (i.e., higher or lower losses) if the cell is filled over a shorter time frame - i.e., one or two years?

Thanks again - Dave

p.s. - I'll look over the tables and figures early next week and get any comments on those to you as well)

(See attached file: lhcc.erdc.model.rep.finalreview.doc)



Lower Harbor CAD Report May 2010prs.doc

To: Cc:

Date: 04/28/2010 10:09 AM

```
Subject: RE: FW: Revised Draft New Bedford Harbor Lower CAD Cell Report
Dave and Mark.
Here are the Word files for the text and tables.
----Original Message----
From: Anderson, Mark J Jr NAE
Sent: Wednesday, April 28, 2010 6:33 AM
To: Schroeder, Paul R ERDC-EL-MS
Cc: Fredette, Thomas ERD
Subject: FW: FW: Revised Draft New Bedford Harbor Lower CAD Cell Report
Please see Dave's email below. Any chance he can get the Word version for his
review of the text?
Mark
Mark J. Anderson, Jr., PMP
Engineering Technical Lead
Geo-Environmental Branch
US Army Corps of Engineers
New England District (CENAE-EP-G)
696 Virginia Rd.
Concord, MA 01742
p: 978-318-8072
c: 978-394-2940
mark.j.anderson.jr@usace.army.mil
----Original Message----
From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov]
Sent: Tuesday, April 27, 2010 6:08 FM
To: Anderson, Mark J Jr NAE
Cc: Fredette, Thomas ERD
Subject: Re: FW: Revised Draft New Bedford Harbor Lower CAD Cell Report
Mark - one other thing. It would be more efficient for me to review this revision if I could see a Word file with the changes "tracked". Is there one available? Plus, in skimming thru the Conclusions on pp.5-6 it appears some hopefully minor editing is still required, so having at least the Word file (even if not in track changes) will make this
process smoother.
Its nice to see the improvements from the hydrodynamic modeling added
Thanks - Dave
 | From: |
|"Anderson, Mark J Jr NAE" <Mark.J.Anderson.Jr@usace.army.mil>
I To: I
|Dave Dickerson/R1/USEPA/US@EPA
>-----
```

"Schroeder, Paul R ERDC-EL-MS" < Paul.R.Schroeder@usace.army.mil>

"Fredette, Thomas ERD" < Thomas.J.Fredette@usace.army.mil>

"Anderson, Mark J Jr NAE" <Mark.J.Anderson.Jr@usace.army.mil>, Dave Dickerson/R1/USEPA/US@EPA

|"Beaudoin, Maurice NAE" <Maurice.Beaudoin@usace.army.mil>, "L'Heureux, Paul G NAE" <Paul.G.L'Heureux@usace.army.mil>, "Iorio, Maryellen | |NAE" <Maryellen.Iorio@usace.army.mil>, "Fredette, Thomas ERD" <Thomas.J.Fredette@usace.army.mil> | |----> Date: | |04/26/2010 07:34 AM |----> | Subject: | |FW: Revised Draft New Bedford Harbor Lower CAD Cell Report -----| Da <<Lower Harbor CAD Report April 2010 Draft.pdf>> ve Attached, please find the revised Draft New Bedford Lower Harbor CAD Modeling Report from ERDC. At your convenience, please take a look at the document and let me know there are any final edits/comments. As soon as we have any final edits, Paul and his team can wrap this up and get the final product back to you --hopefully well in advance of your 19 May deadline. I'm around if you need to discuss anything. Thanks Mark Mark J. Anderson, Jr., PMP Engineering Technical Lead Geo-Environmental Branch US Army Corps of Engineers New England District (CENAE-EP-G) 696 Virginia Rd. Concord, MA 01742 p: 978-318-8072 c: 978-394-2940 mark.j.anderson.jr@usace.army.mil ----Original Message---From: Schroeder, Paul R ERDC-EL-MS Sent: Saturday, April 24, 2010 3:56 AM To: Anderson, Mark J Jr NAE; Fredette, Thomas ERD; Ruiz, Carlos E ERDC-EL-MS; Hayter, Earl ERDC-CHL-MS Subject: Revised Draft New Bedford Harbor Lower CAD Cell Report Mark, I am attaching our revised Draft New Bedford Harbor Lower CAD Cell Report in which we have addressed all of the comments that we have received from Dave Dickerson and others. I have added the higher resolution hvdrodvnamic modeling and incorporated the results of the hydrodynamic modeling into loss predictions as increased turbulent diffusion. The loss predictions increased by about 30 to 40%. We also extended the cap modeling out to years to quantify contaminant breakthrough. The revisions were much extensive than anticipated due to the findings of the hydrodynamic modeling.

Please contact me or other members of my team if you have any questions.

Paul

[attachment "Lower Harbor CAD Report April 2010 Draft.pdf" deleted by Dave Dickerson/R1/USEPA/US1



W

Tables April 2010.doc Lower Harbor CAD Report April 2010 Draft.doc

E-Mail #16

From: "Dragos, Paul M" <dragosp@BATTELLE.ORG>

"Leitch, Robert A NAE" <Robert.A.Leitch@usace.army.mil>, Dave Dickerson/R1/USEPA/US@EPA, "Mitkevicius, K C NAE" <K.C.Mitkevicius@usace.army.mil>, "Mackay, Joseph B NAE" To: <Joseph.B.Mackay@usace.army.mil>, "L'Heureux, Paul G NAE" <Paul.G.L'Heureux@usace.army.mil>, ElaineT Stanley/R1/USEPA/US@EPA

"Dahlen, Deirdre T" <DahlenD@BATTELLE.ORG>, "Boyle, Jeanine" <boylej@BATTELLE.ORG>

Date: 05/21/2009 05:37 PM

Subject: Preliminary Plume Tracking Results

Attached are preliminary turbidity results measured by ADCP for the disposal event 4/14/2009. Shown is the plume observed inside the CAD cell. The turbidity is uncalibrated.

Paul

Paul Dragos

Senior Research Scientist Battelle 397 Washington St. Duxbury, MA 02332 (781) 952-5357 (voice)

(614) 458-6880 (fax) dragosp@battelle.org



Turbidity Inside the CAD Cell doc

Gary Gill-Austern ---08/31/2010 05:05:37 PM---Thank you Dave.

From: Gary Gill-Austern < GGill-Austern@nutter.com>

David Peterson/R1/USEPA/US@EPA To:

 $Many Ryan \\ < MRyan@nutter.com>, Dave Dickerson/R1/USEPA/US@EPA, Cynthia Catri/R1/USEPA/US@EPA, ManChak Ng/R1/USEPA/US@EPA, Maximilian Boal/R1/USEPA/US@EPA, Cristeen \\ < (Color of the Color of the C$

Schena/R1/USEPA/US@EPA

08/31/2010 05:05 PM Subject: RE: New Bedford Harbor Superfund Site emails in response to your FOIA request

Thank you Dave.

Please note, however, that garbage characters comprise the last transmitted portion of your email, starting shortly after "E-Mail #10" appears in the text.

Gary L. Gill-Austern Nutter McClennen & Fish LLP Seaport West 155 Seaport Boulevard, Boston, MA 02210 Direct line 617.439.2250 Fax 617.310.9250

www.nutter.com

This Electronic Message contains information from the law firm of Nutter, McClennen & Fish, LLP, which may be privileged and confidential. The information is intended to be for the use of the addressee only. If you have received this communication in error, do not read it. Please delete it from your system without copying it, and notify the sender by reply e-mail, so that our address record can be corrected. Thank you.

----Original Message--

From: Peterson.David@epamail.epa.gov [mailto:Peterson.David@epamail.epa.gov] Sent: Tuesday, August 31, 2010 4:42 PM To: Gary Gill-Austern

Cc: Mary Ryan; dickerson.dave@epamail.epa.gov; Catri.Cynthia@epamail.epa.gov; Ng.ManChak@epamail.epa.gov; Boal.Maximilian@epamail.epa.gov;

Schena.Cristeen@epamail.epa.gov

Subject: New Bedford Harbor Superfund Site emails in response to your FOIA request

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(Embedded image moved to file: pic12779.jpg)
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109
Delivered by E-Mail
31 August 2010
Gary L. Gill-Austern
Nutter, McClennen & Fish LLP
Seaport West
155 Seaport Boulevard
Boston, MA 02210-2604
Dear Mr. Gill-Austern
Enclosed are 16 sets of e-mails, with attachments, produced in response
to a Freedom of Information Act (FOIA) request made by you on July 28, 2010, regarding the New Bedford Harbor Superfund Site. EPA is continuing to review its records to determine if other documents may be
responsive to your request. We have a telephone call scheduled with you tomorrow, September 1, 2011, to discuss refining the scope of your
review, and production of additional records that may be responsive.
As stated in a letter that you sent EPA on August 12, 2010, it is acknowledged that one of the purposes of your FOIA request was to assist in settlement negotiations and therefore these documents are subject to a confidentiality agreement entered into between your client AVX and the United States on July 11, 2008. Please note that all documents that
contain Confidential Business Information have been separated, labeled,
and sent via a separate e-mail.
If you have any questions about these documents, please contact me.
Sincerely,
David Peterson
Senior Enforcement Counsel
(617) 918-1891
Cynthia E. Catri, Esq. David Dickerson
Christine Schena
Mary K. Ryan, Esq.
E-Mail #1
  From: |
 | "Rigassio-Smith, Anita" < Anita.Rigassio-Smith@jacobs.com> |
 | Dave Dickerson/R1/HSEPA/HSGEPA |
 |---->
 | Date: |
 |06/15/2010 08:24 AM |
  Subject: |
| RE: ESD cost estimates |
```

----Original Message---From: dickerson.dave@epamail.epa.gov [
mailto:dickerson.dave@epamail.epa.gov]
Sent: Monday, June 14, 2010 4:03 PM
To: Rigassio-Smith, Anita
Cc: Fox, Steve (New Bedford); Mark.J.Anderson.Jr@usace.army.mil;
paul.g.l'heureux@usace.army.mil; Maryellen.Iorio@usace.army.mil

Subject: ESD cost estimates

Anita - thanks for sending all the cost info up with Elaine. Could you forward the "Assumptions for ESD Cost Alternatives" via email as a Word file? I'll pass the final edits I make past all of you to make sure you're OK with them. But I'll need a quick turnaround once I do that. Thanks - Dave

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E-Mail #2

> From: >	
"Rigassio-Smith, Anita" <anita.rigassio-smith@jacobs.com> </anita.rigassio-smith@jacobs.com>	
Dave Dickerson/R1/USEPA/US@EPA	
> Date: >	
03/08/2010 06:52 PM	
> Subject: >	
RE: Assumptions narrative	

---Original Message---From: dickerson.dave@epamail.epa.gov [mailto:dickerson.dave@epamail.epa.gov] Sent: Monday, March 08, 2010 4:43 PM To: Rigassio-Smith, Anita Subject: Assumptions narrative

Hi Anita - when you get a minute could you send me the word file for the "ASSUMPTIONS FOR ESD COST ESTIMATES"? It'll be easier for me to make the edits in track changes than to list them as comments. Thanks

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copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.

(See attached file: Assumptionsfor ESD Cost Estimates_Rev7.doc)

E-Mail #3

```
| From: |
|"Rigassio-Smith, Anita" <Anita.Rigassio-Smith@jacobs.com> |
Date: |
|03/02/2010 09:51 AM |
|---->
```

```
| Subject: |
 \____
 |RE: comments on ESD Alternative #1, $80m/yr |
Thanks Dave. In the mean time the answers to your two questions
evening are as follows:
Question 1) Check the unit cost for T&D is correct for CY and not TONS. Answer 1) While the CY unit rate was an actual it was derived in
September
  '09, and varied throughout the season. I will change it (it actually
down) for the next version to reflect the average 2009 rate.
Ouestion 2) Check the $80M version of Alt 2 for stockpiling material for
the
 CDFs, and do you have the most current version.
Answer 2) Yes, you do have the most current version of the estimate.
you brought up this question on 10/29/09, I looked into it and
discovered
 that I had 72,460 CY too much going into the CDFs. This alleviates at
 least
one of the stock-piling years. In the next version I plan to increase
the
rate of building CDFs in project year 1 so that we can fill sooner and
then
eliminate the need for stockpiling altogether. The decision was to not
make
the adjustment at the time so as to continue working on the two $30M
estimates.
Hope this helps for now.
Anita
   ----Original Message---
From: dickerson.dave@epamail.epa.gov [
mailto:dickerson.dave@epamail.epa.gov ]
Sent: Monday, March 01, 2010 5:06 PM
 To: Rigassio-Smith, Anita
Cc: Fox, Steve (New Bedford); maurice.beaudoin@usace.army.mil;
Robert.A.Leitch@usace.army.mil; Anderson.Mark@epamail.epa.gov; paul.g.l'heureux@usace.army.mil; Maryellen.Iorio@usace.army.mil;
 Catri.Cynthia@epamail.epa.gov; Peterson.David@epamail.epa.gov;
Ng.ManChak@epamail.epa.gov; Brill.Larry@epamail.epa.gov; Falvey.Jeanethe@epamail.epa.gov; stanley.elainet@epamail.epa.gov;
White.Kimberly@epamail.epa.gov; Renahan.Kate@epamail.epa.gov
Subject: comments on ESD Alternative #1, $80m/yr
Hi Anita - here's the first set of comments in case you can start in
on the revisions prior to receiving the comments on the other 5 \ensuremath{\operatorname{cost}}
estimates.
Dave
 (See attached file: esd.cost.est.alt1.$80.310.doc)
NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any
viewing,
copying or distribution of, or reliance on this message by unintended % \left( 1\right) =\left( 1\right) \left( 1
recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and
deleting it from your computer.
E-Mail #4
  | From: |
  |---->
  | "Rigassio-Smith, Anita" < Anita.Rigassio-Smith@jacobs.com> |
  To:
  |Dave Dickerson/R1/USEPA/US@EPA, ElaineT Stanley/R1/USEPA/US@EPA, "L'Heureux, Paul G NAE" <Paul.G.L'Heureux@usace.army.mil>, |
  |---->
  I Cc: I
  | "Fox, Steve \(New Bedford\)" <Steve.Fox@jacobs.com>, "Connor, Jackie" <Jackie.Connor@jacobs.com>, "Document Control - Bourne-New |
  |Bedford" <DocumentControl-Bourne-NewBedford@jacobs.com> |
```

> Date: >
> 12/08/2009 02:55 PM
>
ESD Alternative 2 \$30M with Annual Escalated Costs
/
The attached file, Alt2 30M Estimate Dec09, is the assumptions and cost estimate for Alternative 2 of the ESD with a \$30M/year funding scenario. Similar to the Alternative 1 \$30M estimate, the costs have been escalated annually at a rate of 3.5%, but the annual funding remains constant.
Feel free to call me or e-mail me with any questions.
Anita (See attached file: Alt2 30M Transmittal.pdf)[C.B.I. document moved to separate file - Alt2 30 M Estimate Dec09.pdf]
E-Mail #5
> From: >
"Rigassio-Smith, Anita" <anita.rigassio-smith@jacobs.com> ></anita.rigassio-smith@jacobs.com>
> To: >
Dave Dickerson/R1/USEPA/US@EPA, ElaineT Stanley/R1/USEPA/US@EPA, "L'Heureux, Paul G NAE" <paul.g.l'heureux@usace.army.mil>, </paul.g.l'heureux@usace.army.mil>
>
> 11/18/2009 04:26 PM
> Subject:
>

The attached file is the assumptions and cost estimate for Alternative 1 of the ESD with a \$30M/year funding scenario. Per Dave's direction, the costs have been escalated annually at a rate of 3.5%, but the annual funding remains constant.

At roughly half way through the project lifetime, the annual escalated costs exceed \$30M, this is necessary to maintain a minimum of 39 days of hydraulic dredging or a reasonable number of days of field work (e.g., wetlands restoration) each year.

Feel free to call me or e-mail me with any questions.

|ESD Alternative 1 \$30M with Annual Escalated Costs |

Anita

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>
"Rigassio-Smith, Anita" <anita.rigassio-smith@jacobs.com> </anita.rigassio-smith@jacobs.com>
>
> To: >
>
> Date: >
>
 > Subject:
>
Draft 2009 ESD for LHCC Cost Estimates: \$15M and \$80M >
Please find attached the following files for the 2009 ESD for LHCC Cost Estimates: 1. Transmittal Page 2. Assumptions for ESD Cost Estimates 3. Alternative 1 \$15M/Year Cost Estimate 4. Alternative 1 \$80M/Year Cost Estimate 5. Alternative 2 \$15M/Year Cost Estimate 6. Alternative 2 \$10M/Year Cost Estimate 6. Alternative 2 \$80M/Year Cost Estimate
The \$30M/Year scenarios will follow shortly.
If you have any problems with this transmittal, please let me know.
Anita
NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer. (See attached file: Draft 2009 ESD 15-80 Transmittal.pdf) (See attached file: Assumptions for ESD Cost Estimates_Rev1.pdf") [C.B.I. Document moved to a separate file - "ESD Alt 1 15M Rev1.pdf"] [C.B.I. Document moved to a separate file "ESD Alt 1 180M Rev1.pdf"] [C.B.I. Document moved to a separate file - "ESD Alt 2 15M Rev1.pdf"] [C.B.I. Document moved to a separate file - "ESD Alt 2 2 2 3 3 4 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Rigassio-Smith, Anita" <anita.rigassio-smith@jacobs.com> </anita.rigassio-smith@jacobs.com>
 > To: >
Dave Dickerson/R1/USEPA/US@EPA
/
"Fox, Steve \(New Bedford\\)" <steve.fox@jacobs.com>, <paul.g.l'heureux@usace.army.mil> </paul.g.l'heureux@usace.army.mil></steve.fox@jacobs.com>
> Date: >
 07/15/2009 03:59 PM
> Subject: >

|ESD Alt 1 ROM for 7/16/09 |

>
·
Dave,
Attached is the ROM with the numbers we discussed this morning. Good luck tomorrow.
Anita
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[C.B.I. moved to a separate file - "ESD Alt 1 ROM.pdf"]
E-Mail #8
> From:
> >
"Fox, Steve (New Bedford)" <steve.fox@jacobs.com> ></steve.fox@jacobs.com>
I>
To: >
> Dave Dickerson/R1/USEPA/US@EPA
> >
Date: >
> 03/31/2010 10:18 AM
>
> Subject:
> >
Clean Electronic Version of Lower Harbor CAD cell report
Hi Dave,
As requested, please find attached the clean electronic copy of the CAD cell air report.
Thanks,
Steve
NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer. (See attached file: lhcc.air.model NAE Included-revised-with-correction-comments REV 9 CLEAN 2.doc)
E-Mail #9
>
From: >
"Fox, Steve \(New Bedford\)" <steve.fox@jacobs.com> ></steve.fox@jacobs.com>
> To:
>
<u>}</u>

```
| Cc: |
|
| (Mark.J.Otis@usace.army.mil>, <maurice.beaudoin@usace.army.mil>, <Robert.A.Leitch@usace.army.mil>, <paul.g.l'heureux@usace.army.mil>, |
|<Maryellen.Iorio@usace.army.mil> |
| Date: |
|01/05/2010 10:21 AM |
|RE: LHCC Air Modeling Report |
Hi Dave,
Happy New Year to you as well. Please find attached the word version of
LHCC Air Modeling Report for your red-line strike comments.
I also just talked to our modeler. He said that it will be no problem
terms of modeling the mechanical off loading of the material. He will
be able to meet the end of February deadline for both the modeling and finalization of the report.
Steve
----Original Message----
From: dickerson.dave@epamail.epa.gov [
mailto:dickerson.dave@epamail.epa.gov]
Sent: Tuesday, January 05, 2010 9:41 AM
To: Fox, Steve (New Bedford)
Cc: Mark.J.Otis@usace.army.mil; maurice.beaudoin@usace.armv.mil;
Robert.A.Leitch@usace.army.mil; paul.g.l'heureux@usace.army.mil;
Maryellen.Iorio@usace.army.mil
Subject: LHCC Air Modeling Report
Hi Steve - happy new year. I've completed my review of the air
modeling report and was hoping you could forward me the Word file to
streamline the comment process.
Also, it appears that only split hull scows were evaluated in this modeling. We need to add an evaluation of bucket unloading as well, as \frac{1}{2}
this could potentially have greater impacts on air quality (provided
this can be completed by, say, end of February).
Thanks - Dave
(See attached file: NBH-2009-CAD-air-modeling-report-Rev 08-DD-cmts.doc)
E-Mail #10
| From: |
| "Fox, Steve \ (New Bedford\) " <Steve.Fox@jacobs.com> |
|Dave Dickerson/R1/USEPA/US@EPA |
 Date: |
 r R #
                    т
 es A4Db " FVI r 77V
      В
66V &
GF6 VB
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F R 77V
    2
F B B6 w6 V r
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F RU$D2 FV r f & F B 77V
F 2 PXF 2 PX7FWfPPT & v
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F B 66V & OPX7FWfR PΦ W&R &R
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F RG&VFv r BF 7 6 рЦ V wF Ф R
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f V W2 of Y21V"

66V & B 2 & WB 7 V" f "RTV"

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# XF R 6 w6 V pX7V& V7C es V 6 7F GVV G2' IgB V PΦe

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V FW Ц& F Ц 2 lgB BR lgB
66V & f "
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7G& v B fW&vR b
F RD R6 7F GVV B
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WF r D R f V R
vV v FVB fW&vR 70Ц6 V Ц b
F& R F R
F& R 6 6 VFW2 fW&vR
f VW2f "
г vwzr "
F R vw" && Ф4@Ц6V
V Fw" " IgB
66V & PΦ 6fVC 1
FF
f VRV &W'2F B
&V6 6Vŏ F6 W7F FR ~4f V RFfR
&V6V Fŏ
& f FVB
F R # Vŏ 'WB
F W F 6 R6 6R
F ЧF PЦ & v W7F FR
F Rf '7B
F" b
F R GF6 VB
&VG6 VWB
& f FV@46 WF RV&W"' FfR
                           WF V W72
FR
w' 6w2 ~чг Оц б6 2
6 v BF ffW&V 6W2
f V W2 W
W" && "W7F FR3CR
  V W2 W
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